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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/765,124

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Koichi Tamura

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EXAMINER

BRANDT, CHRISTOPHER M

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

04/15/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/765,124	Applicant(s) TAMURA, KOICHI	
	Examiner CHRISTOPHER M. BRANDT	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This Action is in response to applicant's amendment/arguments filed on January 26, 2009. **Claims 1-24** are still currently pending in the present application. **This Action is made FINAL.**

Response to Arguments

Applicant's arguments filed January 26, 2009 have been fully considered but they are not persuasive.

With respect to applicant's argument that Jonsson and Miya fail to disclose or suggest "making a judgment as to whether weighting control is to be exercised on a sample depending upon a number of samples of a candidate for weight control", the examiner respectfully disagrees. Miya teaches selecting weighting factors for path A and path B. Therefore, there are two different paths or samples that Miya selects to perform a weighting selection. As a result, Miya's weighting factor selection circuit is dependent on the two paths. If there were only one delay profile, there would be no need to judge / weigh each path. Therefore, Jonsson and Miya do in fact disclose "making a judgment as to whether weighting control is to be exercised on a sample depending upon a number of samples of a candidate for weight control."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 5, 7, 8, 11, 13, 14, 17, and 19, 20, and 23 are rejected under 35 USC 103(a) as being unpatentable over **Jonsson (US PG PUB 2005/0271122 A1)** in view of **Miya et al. (US Patent 6,721,367 B1, hereinafter Miya)**.

Consider **claim 1 (and similarly applied to claims 7, 13, and 19)**. Jonsson discloses path searching circuit employed in a WCDMA communication system comprising (paragraph 27):

a weighing controlling section to monitor a change of a power level of a sample of each of two or more delay profiles to be used in same power adding processing in delay profile calculation for path search processes and to assign weight to a power level of a specified sample according to a result from the monitoring (paragraph 71, read as the path-searcher 11 of the receiver 10 is run to derive the current power delay profile. The delay powers received during the current path-searcher activation are first selected with the largest powers. Each selected

power is ranked and given a ranking weight. In addition, the contribution of delay number 4 is added to the power delay profile discrepancy variable).

Although Jonsson discloses the claimed invention he fails to explicitly teach that the invention is employed in a CDMA communication system and the exercising of a weighting control where a judgment as to whether said weighting control is exercised on a specified sample depends upon a number of samples of a candidate for said weighting control.

However, Miya discloses a CDMA communication system and the exercising of a weighting control where a judgment as to whether said weighting control is exercised on a specified sample depends upon a number of sample of a candidate for said weighting control (column 2 lines 22-24, column 11 lines 43-48, read as selecting two weighting factors of path A and path B when both have equivalent levels of power. The delay profiles are read as the samples since Miya teaches that the weighting factor selection circuit switch a weighting factor according to a change in the delay profiles).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Miya into the circuit of Jonsson in order to allow transmission with array antennas with an optimal communication quality all the time and to allow detection of a new timing while transmitting both directivities when the switching of transmission is controlled (column 11 lines 48-53).

Consider **claims 2 and as applied to claim 1 (and similarly to claims 8, 14, and 20)**. Jonsson discloses the method wherein said weighing controlling section saves a sample whose

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power level exceeds a power threshold value as said candidate for said weighing control (paragraph 71).

Consider **claim 5 and as applied to claim 1 (and similarly applied to claims 11, 17, and 23)**. Jonsson and Miya disclose wherein said weight assigned to said power level of said specified sample by said weighing controlling section is determined based on any one of a fixed value, a maximum power level, and an amount of a change in a power level (Miya; column 10 lines 57-67).

Claims 3, 4, 9, 10, 15, 16, 21, and 22 are rejected under 35 USC 103(a) as being unpatentable over **Jonsson (US PG PUB 2005/0271122 A1)** in view of **Miya et al. (US Patent 6,721,367 B1, hereinafter Miya)** and further in view of **Reznik et al. (US Patent 6,748,009 B2, hereinafter Reznik)**.

Consider **claim 3 and as applied to claim 2 (and similarly to claims 9, 15, and 21)**. Jonsson and Miya disclose the claimed invention but fail to explicitly teach wherein said weighing controlling section, when the number of samples of said candidate for said weighing control is 1 (one), assigns negative weight to a power level of the sample.

However, Reznik teaches wherein said weighing controlling section, when the number of samples of said candidate for said weighing control is 1 (one), assigns negative weight to a power level of the sample (column 12 line 54 – column 13 line 17, the lowest ranking is read as a negative weight).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Reznik into the circuit of Jonsson and

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Miya in order to improve a receiver for receiving wireless multi-path communication signals by measuring the tapped delay line profile and reallocate RAKE fingers whenever the delays have changed by a significant amount (abstract, column 1 lines 65-67).

Consider **claim 4 and as applied to claim 2 (and similarly applied to claims 10, 16, and 22)**. Jonsson and Miya disclose the claimed invention but fail to explicitly teach wherein said weighing controlling section, when a number of samples of said candidate for said weighing control is two or more and when a difference in power levels among specified samples is a change threshold value or more, assigns negative weight to power levels of the two or more samples.

However, Reznik teaches wherein said weighing controlling section, when a number of samples of said candidate for said weighing control is two or more and when a difference in power levels among specified samples is a change threshold value or more, assigns negative weight to power levels of the two or more samples (column 12 line 54 – column 13 line 17, the lowest ranking is read as a negative weight).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Reznik into the circuit of Jonsson and Miya in order to improve a receiver for receiving wireless multi-path communication signals by measuring the tapped delay line profile and reallocate RAKE fingers whenever the delays have changed by a significant amount (abstract, column 1 lines 65-67).

Allowable Subject Matter

Claims 3, 4, 6, 9, 10, 12, 15, 16, 18, 21, 22, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. the following is a statement of reasons for the indication of allowable subject matter: the references Jonsson, Miya, and Reznik and a thorough search in the art did not comprehensively read on the limitations recited in the claims. Specifically, the negative weight being a weighting value less than 0 (zero). Claim 3 **(and similarly applied to claims 4, 9, 10, 15, 16, 21, and 22)** further limits its independent claim are specifically points out that the number of samples is variable (unlike Miya, which is dependent on a fixed number of samples).

Regarding **claims 3 (and similarly applied to claims 4, 9, 10, 15, 16, 21, and 22)**.

Regarding **claims 6** (and similarly **claims 12, 18, and 24**), the following is a statement of reasons for the indication of allowable subject matter: the references Jonsson, Miya, and Reznik and a thorough search in the art did not comprehensively read on the limitations recited in the claims. Specifically, wherein when a number of samples of said candidate for said weighing control is 3 (three) or more, a difference between a maximum power level and a minimum power level is compared with said change threshold value or a difference in power levels among samples of delay profiles existing before and after one another in terms of time is compared with said change threshold value.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street

Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Brandt whose telephone number is (571) 270-1098.

The examiner can normally be reached on 7:30a.m. to 5p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Christopher M. Brandt

C.M.B./cmb

April 7, 2009

/George Eng/

Supervisory Patent Examiner, Art Unit 2617